# INTERNAL-EXTERNAL CONTROL AS RELATED TO THE LEARNING OF TASK RELEVANT AND TASK IRRELEVANT SOCIAL STIMULI

Ву

DAN MICHAEL SMITH

Bachelor of Science

Oklahoma State University

Stillwater, Oklahoma

1970

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
MASTER OF SCIENCE
December, 1973

Thesis 1973 56452 Cap. 2

APR 10 1974

# INTERNAL-EXTERNAL CONTROL AS RELATED TO THE LEARNING OF TASK RELEVANT AND TASK IRRELEVANT SOCIAL STIMULI

Thesis Approved:

Thesis Adviser

Robert S. Schlossman

Boldel

Dean of the Graduate College

#### **PREFACE**

This study is concerned with the internal-external control dimension as it is related to the learning of social information. More specifically, the learning of social information that varies with respect to its relevancy to task accomplishment is investigated. The predicted results are not obtained and it was speculated that this was due to the confounding effects of the demand characteristics given by the experimenter. It is suggested that future investigations in this area be aware of these effects and control for them.

The author wishes to express his appreciation to his major adviser, Dr. Don Fromme, for his guidance and assistance throughout this study.

Appreciation is also expressed to the other committee members, Dr. Bob Schlottmann and Dr. Bob Helm.

A special note of thanks is given to Kay Mayes for her help in preparing the final manuscript.

Finally, special gratitude to my wife, Julia, and to my parents, Mr. and Mrs. Roger Smith, is expressed for their encouragement, understanding and help.

# TABLE OF CONTENTS

Chapte	er																														Page
I.	INT	ROD	)U(	CT]	[0]	I A	MI	) I	REV	/II	EW	OI	7 .	ГНІ	ΞΙ	_I3	CEE	RA7	CUE	RE				•	•					•	1
II.	THE	PR	ŒS	SEN	ΙΤ	SI	CUI	ŊΥ		•											•	•		•					•	•	10
III.	MET	HOD	)		•			•	•			•								•	•	•	•	•	•	•				•	13
IV.	RES	ULT	S		•			•	•	•				•								•		•		•			•	•	17
V.	DIS	cus	SS]	[0]	1					•	•	•				٠					•				•		•		•		20
VI.	SUM	IMAR	ĽΥ			•				•		•	•	•												•	•		•		24
BIBLI	OGRA	PHY		•	•	•					•	•	•	•		•		•				•		•	•	•	•	•			26
APPENI	DIX	A												•								•					•	•		•	28
APPENI	DIX	В	•	•			•											•		•							•	•			33
APPENI	XIC	С		•	•	•	•	•			•		•	•							•			•			•			•	35
APPENI	XTC	D		_							_		_	_											_						38

# LIST OF TABLES

Table		Page
I.	Means of the Scores on the Recall Tests	17
II.	Summary of Analysis of Variance	18
III.	Internal-External Control Scores of Oklahoma State University Students as Compared to Internal-External Control Scores of Other Groups of Students	42

# LIST OF FIGURES

Fig	ure	Page		
1.	Frequency Distribution of the Internal-External Control Scores for 133 male Psychology 1113 students at Oklahoma State University	40		
2.	Frequency Distribution of the Internal-External Control Scores for 110 female Psychology 1113 students at Oklahoma State University	40		
3.	Frequency Distribution of the Internal-External Control Scores for 243 Psychology 1113 students at Oklahoma State University	41		

#### CHAPTER I

#### INTRODUCTION AND REVIEW OF THE LITERATURE

In Rotter's social learning theory (Rotter, 1954), it is proposed that when a reinforcement follows a behavior the expectancy that the particular behavior will be followed by a reinforcement is strengthened. Conversely, when a behavior is not followed by a reinforcement, this expectancy is diminished. During development, humans experience different schedules of reinforcement. Through generalization some persons come to develop a general expectancy that their behavior will be followed by reinforcements while others do not. Such expectancies are instrumental in defining the individual's orientation towards his behavior and reinforcement and, thus, are relevant in defining the type of behaviors a person exhibits.

Rotter (1966) proposed two general types of expectancy beliefs held by persons:

If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control. (Rotter, 1966, p. 1)

When a reinforcement is perceived by a subject as following some action of his own but not being entirely contingent upon his actions, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. (Rotter, 1966, p. 1)

In this study this dimension of internal-external control is investigated as it relates to the learning of social stimuli (information about other persons). In particular, the learning of social stimuli that is instrumental to reaching a personal goal is compared with the learning of social stimuli that is not relevant to reaching a personal goal.

First, some background literature dealing with Rotter's Internal-External Control Scale will be discussed. Then, studies having to do with the internal-external control dimension and relevant to this study will be discussed.

Phares (1955) and James (1957) developed a scale for the measurement of internal-external control. A final version of the scale, developed by J. B. Rotter, consists of a forced choice type questionnaire made up of twenty-nine items, six of which are filler questions. The score is the number of external choices made on the test. Thus, a person with a relatively high score would be externally controlled and a person with a relatively low score would be internally controlled. The items deal with the subject's expectations concerning how reinforcement is controlled. Therefore, the test measures the subject's reporting of his generalized expectancies concerning the internality or externality of the locus of control of reinforcement. Rotter's Internal-External Control Scale has been shown (Rotter, 1966) to demonstrate a relatively high degree of reliability (internal consistency,  $.65 \le r \le .79$ ; test reliability,  $.49 \le r \le .83$ ).

Internally controlled persons tend to take an active, direct approach toward dealing with their environment as compared to externally controlled subjects. Internally controlled persons have been found to be gen-

erally more aware of their environment and more apt to seek out information from their environment than are externally controlled persons.

Seeman (1959) and Seeman and Evans (1962) investigated the relationship between internal-external control and awareness of the environment. Reformatory residents and TB ward patients were tested to find the extent of their knowledge of the facts relevant to their situation. They hypothesized that since externally controlled persons do not see events as directly related to their own actions they would regard active information gathering as non-productive. Thus, the externally controlled reformatory residents and TB ward patients were predicted to have more limited knowledge concerning their situation. As predicted, they found that externally controlled subjects had less knowledge pertaining to their illness, were rated as having little relevant knowledge by the staff, and the externally controlled subjects expressed greater dissatisfaction with the information process on the ward. They concluded that externally controlled subjects were more alienated than internally controlled subjects, had less knowledge of their situation, and actively sought less knowledge due to the externally controlled subject's feelings of lack of control and of powerlessness in the situation.

Davis and Phares (1967) also investigated the amount of active information gathering done by internally controlled and externally controlled subjects. They staged a situation in which the subject was asked to try to persuade a person to change his views. Then they allowed the subject several chances to gather information about the other person and about the relevant issue. Although several of Davis and Phares' hypotheses were not supported, they did find a significant correlation between internal-external control and the amount of information sought con-

cerning the other person. The hypothesis that internally controlled subjects would more actively seek out more task relevant information than would externally controlled subjects was supported.

Seeman (1963) investigated the relationship between the internalexternal control dimension and the amount of different types of information that inmates at a reformatory were able to report. Seeman found that there was no difference between the internally controlled inmates and the externally controlled inmates as to the amount of information they reported concerning the present reformatory setting or the long range prospects for a non-criminal career (information not relevant to the goals of the inmates). However, internally controlled inmates were able to report more parole related information than were the externally controlled inmates. Internally controlled inmates had learned information that was goal related (parole related) but had not learned information that was not goal related significantly better than the externally controlled subjects. Thus, Seeman saw the internally controlled inmates as more task oriented and selectively attending to the goal relevant stimuli. Externally controlled inmates did not selectively attend to the stimuli that were goal relevant.

Several experiments have yielded results which seem to indicate that internally controlled persons are more characterized by direct attempts to control their environment than externally controlled persons.

Strickland (1965) administered the internal-external control scale and the Marlowe-Crowne Social Desirability Scale to a group of fifty-three Negroes actively engaged in the civil rights movement in the South and to a control group of one hundred and five Negroes who were not active in the civil rights movement. The Marlowe-Crowne Social De-

sirability Scale did not differentiate the active versus the inactive groups but a significant relationship was found between internal-external control scores and the degree of social action. The more internally controlled the subject, the more likely that he was a member of an active civil rights movement group.

Phares (1965) investigated the attempts of twenty-seven internally controlled and twenty-seven externally controlled males to influence experimental groups of females who achieved intermediate scores on the internal-external control scale. They measured the strength of the influence exerted by two methods: the magnitude of attitude change in the females and the frequency of change of attitudes in the females. Using both measurements, the internally controlled males were found to exert greater influence than externally controlled males.

Gore and Rotter (1963) investigated the relationship between subject's score on the internal-external control scale and their willingness to commit themselves to social action. The hypothesis was that persons who believed that their own fate is controlled by their own actions would be more likely to commit themselves to social action than persons who believe that their fate is controlled by external forces. They found that Negro students who were willing to make a signed commitment to take part in activities (march, join a freedom rider's group) concerned with the civil rights movement, scored significantly more toward the internal control end of the internal-external control dimension than did Negro students who were only willing to attend a rally, were not interested in participating, at all, or who avoided even filling out a questionnaire. Thus, scores on the internal-external scale may predict the degree to which a person will commit himself to social action.

Liverant and Scodel (1960) hypothesized that behavior in a situation involving decision making under conditions of risk is influenced by a dimension of internal-external control. Twenty-eight internally controlled subjects and twenty-six externally controlled subjects engaged in a gambling situation in which each subject was required to bet on the outcome of the toss of a pair of dice thirty times. On each trial the subject selected one of four amounts to bet on one of seven alternative outcomes with known probabilities. Internally controlled subjects were significantly less variable in their bets. They tended to choose significantly more intermediate probability bets and fewer extremely high or extremely low probability bets than did the externally controlled subjects. The internally controlled subjects attempted to maximize their gains and minimize their losses by selecting intermediate probability bets whereas externally controlled subjects relied more upon chance.

Jones and Schrauger (1968) investigated the behavior of internally controlled and externally controlled subjects in a social influence situation. They measured internal-external control with the Rotter Internal-External Control Scale. Then they administered a test to the subjects. Half of the subjects were told that the test measured a skill (ability condition) and the other half were told that the test measured opinions (opinion condition). The subjects were given feedback from two of their peers concerning their answers. However, the feedback was controlled so that they received mostly negative feedback from one peer and mostly positive feedback from the other peer. The main dependent variable was the amount of reciprocation (defined as the number of agreements the subject sent to the negative evaluator subtracted from the number of agreements sent to the positive evaluator). The authors pre-

dicted that the internally controlled subjects would perceive the opinion condition as more controllable than the ability condition and, therefore, would try harder in the opinion condition to influence the negative evaluator (as evidenced by a low reciprocation score). Externally controlled subjects, however, would see both situations as not under the influence of their own behavior and should not differ in the amount of reciprocation given in the two situations.

In the opinion condition there was a significant correlation between the internal-external control dimension and the amount of reciprocation (r = .61, n = 20, p < .01) but not in the ability condition (r = .09, n = 33). In both conditions the externally controlled subjects reciprocated more than the internally controlled subjects. Jones and Schrauger saw this as evidence that in the opinion condition the externally controlled subjects tended to agree with the positive evaluators in order to get more positive evaluations while the internally controlled subjects tried to change the evaluations of the negative evaluators in order to achieve more positive evaluations. These results could be taken as evidence that the externally controlled subjects felt a need to ingratiate their evaluators or that they were using the evaluations of the others as a guide for their own responses. Internally controlled subjects, on the other hand, reciprocated at a lower level showing an active attempt to manipulate the peer's evaluations.

Jones and Schrauger concluded that the externally controlled subjects tend to show a socio-emotional orientation, while the internally controlled subjects displayed a more active, task oriented manner of responding.

Externally controlled persons also show a lack of confidence in the outcomes of their behavior (Lefcourt, 1966; Crowne and Liverant, 1963). This lack of confidence is evidenced by a tendency on the part of externally controlled subjects to conform to judgements made by internally controlled subjects. Crowne and Liverant (1963) found that internally controlled subjects, when betting on the accuracy of their judgements in a shotgun situation, bet the same amount on trials in which their estimates conformed with the estimates of the group as they did when their estimates did not conform to the estimates of the group. However, externally controlled subjects bet less on nonconforming trials than on trials in which their estimates conformed to the estimates of the group. They concluded that internally controlled subjects were more confident in their judgements than were externally controlled subjects.

From the results of the studies reported above it can readily be seen that persons who differ with respect to belief in locus of control also tend to differ in several other significant ways. Internal control scores have been shown to be positively correlated with an active, task-oriented approach in dealing with the environment. Internally controlled persons tend to actively seek out and to be generally more aware of information pertinent to their situation than externally controlled persons when they see this information as relevant for dealing with their environment. However, when internally controlled persons do not perceive the information as relevant, they do not significantly differ from externally controlled persons with respect to these behaviors.

Externally controlled persons, as compared to internally controlled persons, are generally less aware of their environment and are less likely to actively seek out relevant information. In addition, they are

less likely to actively deal with their environment. They tend to take a socio-emotional orientation, feeling less confident of their own behavior than internally controlled persons and tending to conform more to others. A possible mechanism of dealing with others used by externally controlled persons is to ingratiate them in order to increase the possibility of a positive reinforcement. Since externally controlled persons are seen as depending more upon others for guidelines for their behavior and for reinforcements, it seems logical to assume that externally controlled persons would be more sensitive toward information about others than would internally controlled persons.

#### CHAPTER II

#### THE PRESENT STUDY

Based on results reported in the literature on the internal-external control dimension, one might expect different reactions from internally controlled and externally controlled subjects in different types of situations. For example, in a situation in which the perception of social stimuli played an important role in achieving a reinforcement (a task relevant social stimuli situation) the internally controlled subject would be expected to seek out the social stimuli as information relevant to the attainment of the goal of task achievement. In a situation in which the social stimuli were not relevant to the attainment of the goal of task achievement, internally controlled subjects would not be expected to actively seek out and to attend to the social stimuli. However, externally controlled subjects, expecting that reinforcement for task accomplishment is under the control of external forces, should not show as great a difference in information collecting between the task relevant social stimuli situation and the task irrelevant social stimuli situation.

This thesis is an attempt to investigate these behavioral predictions based upon the concept of internal-external control. Two groups of subjects, one group internally controlled and the other externally controlled, were given an experimental task which involved attending to social stimuli. Half of these stimuli were task relevant while the other half were not relevant to the accomplishment of the experimental task.

A significant interaction effect was predicted since the amount of social stimuli recalled in the relevant and the irrelevant situation is predicted to vary with differences in internal-external control. Furthermore, a significant main effect associated with task relevancy-task irrelevancy was expected to be significant since the internally controlled subjects would be expected to perform better in the task relevant situation than in the task irrelevant situation. However, the main effect of internal-external control was not expected to be significant. Internally controlled subjects would be expected to perform well on the recall tests for task relevant social stimuli but to perform poorly on the recall test for task irrelevant social stimuli. Externally controlled subjects would be expected to perform equally well on the tests for task relevant and task irrelevant stimuli. However, since externally controlled persons would generally be expected to attend better to social information than internally controlled persons, it would be predicted that the externally controlled subjects would achieve scores intermediate between the internally controlled subjects' high task relevant scores and low task irrelevant scores. Therefore, the overall mean for the recall scores of the externally controlled subjects would be predicted to be close to the overall scores for the internally controlled subjects. Thus, no significant internal-external control main effect is expected.

CHAPTER III

**METHOD** 

### Subjects

The subjects were 30 male undergraduate students who were enrolled in an introductory psychology course at Oklahoma State University.

### Tests and Groups

Rotter's Internal-External Control Scale was administered to 243 persons in introductory psychology courses; 110 females and 133 males. A frequency distribution was made of the scores for the 133 male students. The mean and the standard deviation were found to be 10.89 and 4.04, respectively. The distribution was unimodal and close to symmetrical. The male students that had scores above one standard deviation above the mean (15 and above) were designated as externally controlled. The male students with scores below one standard deviation below the mean (7 and below) were designated as internally controlled (see Appendix D).

#### Experimental Tasks

The experimental task entailed the listening to a tape recording of two males (Floyd and Bill) exchanging personal information about each other. Several pre-experimental tests were carried out to make sure that they had no difficulty discriminating between the persons on the tape. One half of the subjects were instructed to listen to Floyd while

played, the subject was told that he would be tested over the information given on the tape by the person to whom he was instructed to attend. No mention was made concerning the information given by the opposite person on the tape nor about any recall test over this information. The person on the tape the subject was instructed to listen to was termed the focal person and the opposite person was termed the nonfocal person.

It was assumed that the subject would desire to present himself in a good light by making a good score on the recall test. Since the subject was told only that he would be tested over the information given by the focal person, the information given by the focal person on the tape was assumed to be relevant to the successful accomplishment of attaining a high score on the recall test and therefore labeled task relevant social information. The information given by the nonfocal person on the tape was not considered to be relevant to successful attainment of a high score and therefore it is labeled task irrelevant social information.

After the subject listened to the tape, two 25 item fill-in-the-blank questionnaires were administered to ascertain the number of personal characteristics pertaining to the focal person (task relevant social stimuli) and to the nonfocal person (task irrelevant social stimuli) that each subject was able to recall. It was assumed that the number of personal characteristics recalled would offer an index to the amount of attention directed toward the information on the tape (see Appendix C).

#### Procedure

Rotter's Internal-External Control Scale was administered to 243 students in Psychology 1113 at Oklahoma State University. The tests

were scored and the subjects were designated as internally or externally controlled as stated above.

The experimental task was administered to each of the subjects separately. They were seated and the following instructions were given:

"I am doing a study to investigate the ability of people to learn information concerning other people. You will hear a tape which contains a good deal of information concerning the two people on the tape. The two persons have different names and different sounding voices. You are to listen to the person named (Floyd, Bill) and to learn as much information about him as you can. Listen carefully to the tape because you will be tested over the amount of information you can correctly remember concerning (Floyd, Bill)."

The order of the recall tests was random across subjects in order to counterbalance the effects of memory loss over time and the effects of the first testing situation upon the information that was to be recalled during the second testing situation.

Instructions for the test concerning information related to the focal person were:

"This test is being given to assess the amount of information you were able to learn and retain concerning (Floyd, Bill). Read each question carefully and write the correct answer in the blank following each question. Be sure to answer each of the questions as carefully as you can."

Instructions for the recall test concerning information related to the nonfocal person were:

"This test is being given to assess the amount of information you were able to learn and retain concerning the person on the tape whom you were not instructed to listen to; that is, (Floyd, Bill). Read each question carefully and write the correct answer in the blank following each question. Be sure to answer each of the questions as carefully as you can. Remember that you are to indicate the information that was given by the person that you were not instructed to attend to."

The number of correct answers given by the subject on each of the tests was totaled, giving two scores. The total number of correct answers

given on the test concerning the recall of information related to the focal person was the score for the recall of the task relevant information. The total number of scores given concerning the recall of information related to the nonfocal person was the score for the recall of task irrelevant information.

#### CHAPTER IV

## RESULTS

The scores of the recall tests were arranged in a two-by-two table. As shown in Table I, both the internally controlled subjects and the externally controlled subjects scored high on the recall tests for the task relevant social stimuli, but not for the task irrelevant social stimuli.

TABLE I

MEANS OF THE SCORES ON THE RECALL TESTS

	task relevant social stimuli (focal)	task irrelevant social stimuli (non-focal)					
externally controlled subjects	21.4	14.4					
internally controlled subjects	19.67	14.2					

A fixed two-by-two repeated measures analysis of variance was done.

As whown in Table II, the analysis of variance indicates that, contrary

to the hypothesis, the interaction effects were found to be non-significant ( $\underline{F}$  = .678,  $\underline{df}$  = 1/28, p  $\times$  .05). This result indicates that the subjects' internal-external control orientation had no effect on their scores on the recall tests for the task relevant and task irrelevant social stimuli.

TABLE II
SUMMARY OF ANALYSIS OF VARIANCE

Source	SS	df	MS	F
Between Subjects				
A (internal-external	17.00	7	1/ 0	0 570
control)	14.00	1	14.0	0.570
Subjects within groups	688.33	28	24.58	
Within Subjects				
B (task relevancy)	582.80	1	582.80	37.49**
AB (interaction	10,40	1	10.40	0.67
B x subjects within groups	435.27	28	15.55	

<sup>\*\*</sup>p < .01

As expected the results indicate that the internal-external control main effect failed to reach significance ( $\underline{F}$  = 0.57,  $\underline{df}$  = 1/28, p  $\lambda$  .05). Thus, the internally controlled and externally controlled subjects did not respond differently on the experimental task.

Also as expected, the task relevant-task irrelevant main effect reached significance ( $\underline{F}$  = 37.49,  $\underline{df}$  = 1/28, p < .01) indicating that the

subjects tended to remember more of the information presented by the focal person on the tape (task relevant social stimuli) than the information presented by the non-focal person on the tape (task irrelevant social stimuli).

#### CHAPTER V

#### DISSCUSSION

In chapter one it is suggested that internally controlled persons see their reinforcements as a result of their own performance on tasks. One implication might be that internally controlled subjects, being task oriented, attend more to information that is relevant to the successful completion of a task than they would attend to information irrelevant to successful task completion.

It was further suggested in chapter one that externally controlled persons see their reinforcements as being controlled by chance, luck, or fate rather than a result of their own efforts. Thus, externally controlled subjects would be expected to attend equally well to task relevant and task irrelevant information since they see the results as largely beyond their control.

However, in this study, the recall scores of the subjects were not dependent upon the internal-external control scores of the subjects as indicated by the nonsignificant F score for interaction effects. Furthermore, the internally controlled subjects and the externally controlled subjects did not significantly different respect to their scores on the recall tests for the task relevant and task irrelevant situations as indicated by the nonsignificant F score for the internal-external control main effect. Whether a subject was externally controlled or internally controlled, he tended to remember significantly more informa-

tion given by the focal person than by the non-focal person as indicated by the significant F score for the task relevant-task irrelevant main effect.

It appears that the task relevancy or task irrelevancy of the social stimuli was a much more salient factor in this experiment than the internal-external control factor. This is perhaps a result of the demand characteristics of this experimental situation.

Orne (1962) demonstrated the importance of demand characteristics in psychological experiments using humans as subjects. He proposed that, in experimental situations, human subjects are not passive but are active participants. Subjects tend to adopt a subject role in which they attach meaning to the experiment and their participation in it.

Because of this, human subjects tend to go to great lengths to fulfill the expectations of the experimenter as they perceive them.

It appears that the main relevant social stimuli in this experimental situation were not those given by the focal person on the tape but the experimenter and his instructions. In this experiment the instructions were very explicit. They made it very clear that the experimenter desired the subject to attend to the information given by the focal person on the tape. It is probable that the subjects, fulfilling the subject role as communicated to them by the experimenter through the instructions, did just this. Thus, all of the subjects achieved better recall scores on the information given by the focal person than by the non-focal person. The effects of the demand characteristics of this experiment may have been much greater than the effects of the internal-external control orientation of the subject, thus, confounding the results.

It is probable that the internal-external control scores of the subjects used in this experiment are somewhat skewed toward the external control end of the dimension. In Table III, page 42, it can be seen that the subjects tended to achieve more external control scores than did several norm groups. This group of subjects may have been more homogeneous than average with respect to the internal-external control dimension tending to make the significance of the internal-external control main effect more difficult to obtain.

It is probable that a ceiling effect was present in this experiment. Both the internally and externally controlled subjects did very well on the recall tests for task relevant social stimuli. If these tests were made more difficult a larger variance would be predicted in the subjects' scores and a significant effect could be more easily detected.

Taking these findings into account, an experiment could be constructed that would avoid these problems. The effects of the experimenter's demand characteristics could be avoided by presenting internally controlled and externally controlled subjects with task relevant and task irrelevant social information which are not directly made relevant or irrelevant by the instructions. The subjects could be asked to enter the room and to wait until the experimenter was ready to administer the task. However, the experimenter and a confederate could be briefly discussing information concerning each other. Since the subjects had not been instructed to listen to this information and since it would not directly appear to be related to the experimental task it is assumed that this information would be seen by the subjects as irrelevant to the experiment. Thus, this information could be termed task irrelevant social stimuli. After the confederate and the experimenter

finished, the subjects could be instructed to listen to a tape recording of two people discussing information about themselves. It is assumed that the subjects could see this information as relevant to the task accomplishment and, therefore, this information would be termed task relevant social stimuli. The task relevant and task irrelevant social stimuli could be matched. Afterwards the subjects could be tested over the task relevant and the task irrelevant social stimuli.

Since it is proposed that externally controlled persons are more sensitive to social information than are internally controlled persons, the externally controlled subjects should achieve better scores on the recall tests for the task irrelevant social stimuli than the internally controlled subjects. However, the internally controlled subjects could be expected to achieve better recall scores on the task relevant social stimuli.

From the results of this experiment it is clear that further experimentation in this area should take the demand characteristics of the situation into account.

#### CHAPTER VI

#### SUMMARY

In this study an attempt was made to investigate the relationship between the amount of attending to social stimuli (measure by recall tests) that was either relevant to task accomplishment or irrelevant to task accomplishment and the subject's belief of locus of control of reinforcement as measured by Rotter's Internal-External Control Scale (Rotter, 1966). The independent variables were:

- 1) locus of control,
- 2) relevancy or irrelevancy of the social stimuli to the accomplishment of the task.

The dependent variable was the scores on the recall tests: the number of correct choices on the tests of recall for the task relevant social stimuli and the task irrelevant social stimuli. Rotter's Internal-External Control Scale was administered to Psychology 1113 students, and 133 male subjects were selected as being internally controlled or externally controlled. Fifteen externally controlled subjects (above one standard deviation above the mean) and fifteen internally controlled subjects (below one standard deviation below the mean) were given the experimental treatment which consisted of a tape recording which contained matched groups of social stimuli pertaining to two persons. The subject was instructed to attend to the social stimuli associated with one of the persons on the tape and told that he would be tested over that

information later. The social stimuli associated with the person on the tape to which the subject was instructed to attend was assumed to be relevant to task accomplishment and, thus, termed "task relevant social stimuli." The other social stimuli, to which the subject was not instructed to attend, was termed "task irrelevant social stimuli." Afterwards, the subject was given two 25 item multiple choice tests of recall to assess the amount of both types of social stimuli that he was able to recall. This score was used as a measure of the amount of attending to the task relevant social stimuli and the task irrelevant social stimuli displayed by the subject. The data was analyzed in a fixed 2 X 2 repeated measures analysis of variance.

It was hypothesized that the interaction effects and the task relevant-task irrelevant main effect would be significant at the p < .05 level. However, the internal-external control main effect was not expected to be significant at the p < .05 level.

Results indicated that while the task relevant-task irrelevant main effect was significant at the p < .01 level, the interaction effects and internal-external control main effect were not significant at the p < .05 level. It was speculated that the subjects responded to the demand characteristics of the experimental situation to such an extent to overshadow any effects that the internal-external control main effect might have had. The demand characteristics were to attend to the information given by the focal person (task relevant social stimuli) but not to attend to the information given by the non-focal person (task irrelevant social stimuli).

A suggestion for further research is discussed that would enable the assessment of the internal-external main effect without the confounding effect of demand characteristic.

#### **BIBLIOGRAPHY**

- Crowne, D. P., and Liverant, S.
  - "Conformity Under Varying Conditions of Personal Commitment."

    Journal of Abnormal and Social Psychology, 66, 547-555.
- Davis, W. L., and Phares, E. J.
  - "Internal-External Control as a Determinant of Information Seeking in a Social Influence Situation." <u>Journal of Personality</u>, 35, 547-561.
- Gore, P., and Rotter, J. B.
  - "A Personality Correlate of Social Action." <u>Journal of Personality</u>, 31, 58-64.
- Jones, S. C., and Schrauger, J. S.
  - "Locus of Control and Interpersonal Evaluations." <u>Journal of</u> Consulting and Clinical Psychology, 32(6), 664-668.
- Lefcourt, H. M.
  - "Internal verses External Control of Reinforcement: A Review."

    <u>Psychological Bulletin</u>, Vol. 56, No. 4, 206-220.
- Liverant, S., and Scodel, A.
  - "Internal and External Control as Determinants of Decision Making under Conditions of Risk." <u>Psychological Reports</u>, 7, 59-67.
- Martin, O. T.
  - "On the Social Psychology of the Psychological Experiment: With Particular Reference to Demand Characteristics and Their Implications." American Psychologist, 17(10), 776-783.
- Phares, E. J.
  - "Internal-External Control as a Determinant of the Amount of Social Influence Exerted." Journal of Personality and Social Psychology, 2, 642-647.

#### Rotter, J. B.

- 1954 <u>Social Learning and Clinical Psychology</u>. New York: Prentice-Hall.
- "Generalized Expectancies for Internal verses External Control of Reinforcement." <u>Psychological Monographs</u>, 80 (Whole No. 609).

#### Seeman, M.

- 1959 "On the Meaning of Alienation." American Sociological Review, 24, 782-791.
- "Alienation and Social Learning in a Reformatory." American Journal of Sociology, 69, 270-284.

Seeman, M, and J. Evans.

"Alienation and Learning in a Hospital Setting." American Sociological Review, 27, 772-782.

## Strickland, B. R.

"The Prediction of Social Action from a Dimension of Internal-External Control." Journal of Social Psychology, 66, 353-358.

# APPENDIX A

ROTTER'S INTERNAL-EXTERNAL CONTROL SCALE

This is a questionnaire to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (and only one) which you more strongly believe to be the case as far as you're concerned. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true. This is a measure of personal belief: obviously there are no right or wrong answers.

Your answers to the items on this inventory are to be recorded on a separate answer sheet which is loosely inserted in the booklet. REMOVE THIS ANSWER SHEET NOW. Write your name and sex on the answer sheet, then finish reading these instructions. Do not open the book until you are told to do so.

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. Find the number of the item on the answer sheet and check the space ( $\sqrt{\phantom{0}}$ ) that is designated as a or b that corresponds to the statement that you believe is more true.

In some instances you may find that you believe both statements or neither one. In such a case, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice; do not be influenced by your previous choices.

- a Children get into trouble because their parents punish them too much.
  - b The trouble with most children nowadays is that their parents are too easy on them.
- 2) a Many of the unhappy things in people's lives are partly due to bad luck.
  - b People's misfortunes result from the mistakes they make.
- 3) a One of the major reasons why we have wars is because people don't take enough interest in politics.
  - b There will always be wars, no matter how hard people try to prevent them.
- 4) a In the long run people get the respect they deserve in this world.
  - b Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
- 5) a The idea that teachers are unfair to students is nonsense.
  - b Most students don't realize the extent to which their grades are influenced by accidental happenings.
- 6) a Without the right breaks one cannot be an effective leader.
  - b Capable people who fail to become leaders have not taken advantage of their opportunities.
- 7) a No matter how hard you try some people just don't like you.
  - b People who can't get others to like them don't understand how to get along with others.
- 8) a Heredity plays the major role in determining one's personality.
  - b It is one's experiences in life which determines what they are like.
- 9) a I have often found that what is going to happen will happen.
  - b Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
- 10) a In case of the well prepared student there is rarely if ever such a thing as an unfair test.
  - b Many times exam questions seem to be so unrelated to course work that studying is really useless.
- 11) a Becoming a success is a matter of hard work.
  - b Getting a good job depends mainly upon being in the right place at the right time.
- 12) a The average citizen can have an influence in government decisions.
- b This world is run by the few people in power, and there is not much that the little guy can do about it.
- 13) a When I make plans, I am almost certain that I can make them work.
  - b It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

- 14) a There are certain people who are just no good.
  - b There is some good in everybody.
- 15) a In my case getting what I want has little or nothing to do with luck.
  - b Many times we might just as well decide what to do by flipping a coin.
- 16) a Who gets to be the boss often depends upon who was lucky enough to be in the right place first.
  - b Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
- 17) a As far as world affairs are concerned, most of us are the victim of forces we can neither understand, nor control.
  - b By taking an active part in political and social affairs the people can control world events.
- 18) a Most people don't realize the extent to which their lives are controlled by accidental happenings.
  - b There really is no such thing as luck.
- 19) a One should always be willing to admit mistakes.
  - b It is usually best to cover up one's mistakes.
- 20) a It is hard to know whether or not a person really likes you.
  - b How many friends you have depends upon how nice a person you are.
- 21) a In the long run the bad things that happen to us are balanced by the good ones.
  - b Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
- 22) a With enough effort we can wipe out political corruption.
  - b It is difficult for people to have much control over the things politicians do in office.
- 23) a Sometimes I can't understand how teachers arrive at the grades I get.
  - b There is a direct connection between how hard I study and the grades I get.
- 24) a A good leader expects the people to decide for themselves what they should do.
  - b A good leader makes it clear to everybody what their jobs are.
- 25) a Many times I feel that I have little influence over the tings that happen to me.
  - b It is impossible for me to believe that chance or luck plays an important part in my life.
- 26) a People are lonely because they don't try to be friendly.
  - b There's not much use in trying too hard to please people, if they like you, they like you.

- 27) a There is too much emphasis on athletics in high school b Team sports are an excellent way to build character.
- 28) a What happens to me is my own doing.
  b Sometimes I feel that I don't have enough control over the direction my life is taking.
- 29) a Most of the time I can't understand why politicians behave the way they do.
  - b In the long run the people are responsible for bad government on a national level as well as on a local level.

# APPENDIX B

INFORMATION GIVEN ON THE TAPE: THE SOCIAL STIMULI

	Bi11 .	Floyd
age	21	25
hair color	brown	red
height	5 ' 8"	6'2"
weight	150	180
church preference	Baptist	Lutheran
political party affiliation	Republican	Democrat
number of brothers	2	0
number of sisters	1	3
ancestry	Irish	German
Stillwater residence	Kerr	Scott
major	business	physics
favorite food	steak	roast beef
hobby	painting	reading
favorite sport	baseball	football
favorite type of music	folk	rock
favorite place to go	movies	friend's house
color of girlfriend's hair	blond	red
classification	sophomore	senior
favorite movie	Butch Cassidy and the Sun- dance Kid	M*A*S*H*
girlfriend's name	Juli <b>a</b>	Vickie
goal in ten years	own a clothing store	high school teacher
most important national problem	crime	education
make of car	Oldsmobile	Buick
attitude toward marihuana	it is safe but should not be legalized	it is safe and should be legalized

### APPENDIX C

TESTS OF RECALL

TEST OF RECALL FOR INFORMATION CONCERNING

THE FOCAL PERSON AND

THE NON-FOCAL PERSON

The instructions for the recall test concerning the focal person were:

This test is being given to assess the amount of information that you were able to learn and retain concerning \_\_\_\_\_\_, the person to whom you were instructed to attend.

Read each question carefully and then write the answer in the blank following the question. Be sure to answer each of the questions as carefully as you can.

The instructions for the recall test concerning the non-focal person were:

This test is being given to assess the amount of information you were able to learn and retain concerning the person on the <u>tape that you were not instructed to listen to</u>; that is, \_\_\_\_\_.

Read each question carefully and then write the answer in the blank following the question. Be sure to answer each of the questions as carefully as you can.

Remember that you are to indicate the information that was given by the person that you were not instructed to listen to.

The order of the recall tests was randomized. Ther person on the tape that was designated as the focal person was also randomized across the subjects.

1)	What is's age?
2)	What color is's hair?
3)	How tall is?
4)	How much does weigh?
5)	What is's church preference?
6)	What is's political party affiliation?
7)	How many brothers does have?
8)	How many sisters does have?
9)	What is's ancestry?
10)	What is's hometown?
11)	Where does live here in Stillwater?
12)	What is's major?
13)	What is's favorite food?
14)	What type of music does like best?
15)	What is's hobby?
16)	What is's favorite sport?
17)	Where is's favorite place to go?
18)	What color of hair does's girlfriend have?
19)	What is's classification?
20)	What is's favorite show?
21)	What is's girlfriend's name?
22)	What does want to be in ten years?
23)	What does think is the most important national problem?
24)	What make of car does have?
25)	What is's attitude toward marihuana?

### APPENDIX D

INFORMATION CONCERNING THE ADMINISTRATION OF THE

INTERNAL-EXTERNAL CONTROL SCALE TO 243

OKLAHOMA STATE UNIVERSITY

PSYCHOLOGY 1113 STUDENTS

Rotter's Internal-External Control Scale was administered to 243 Oklahoma State University Psychology 1113 students with the following results:

### Males:

n = 133

mean = 10.45

standard deviation = 4.74

#### Females:

n = 110

mean = 11.22

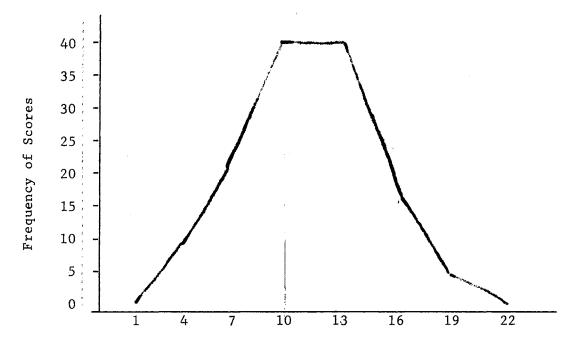
standard deviation = 3.62

### Total:

n = 243

mean = 10.98

standard deviation = 4.29



Internal-External Control Scores

Figure 1. Frequency Distribution of the Internal-External Control Scores for 133 Male Psychology 1113
Students at Oklahoma State University

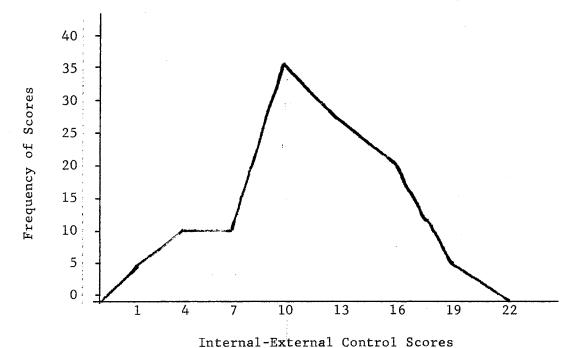


Figure 2. Frequency Distribution of the Internal-External Control Scores for 110 Female Psychology 1113 Students at Oklahoma State University

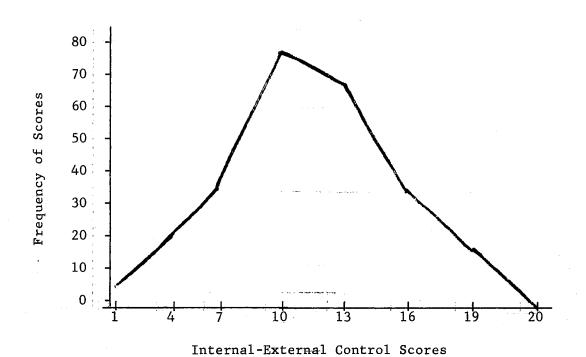


Figure 3.. Frequency Distribution of the Internal-External Control Scores for 243 Psychology 1113 Students at Oklahoma State University

# Comparative Data

TABLE III

# INTERNAL-EXTERNAL CONTROL SCORES OF OKLAHOMA STATE UNIVERSITY STUDENTS AS COMPARED TO INTERNAL-EXTERNAL CONTROL SCORES OF OTHER GROUPS OF STUDENTS

Means:	Male	Female	Combined
Oklahoma State			
University	10.45	11.22	10.98
Ohio State University	8.15	8.42	8.29
Kansas State			
University	7.71	7.75	7.73
Peace Corps	6.06	5.48	5.94
Standard Deviations:			
Oklahoma State			
University	4.74	3.62	4.29
Ohio State University	3.88	4.06	3.97
Kansas State			
University	3.84	3.79	3.82
Peace Corps	3.51	2.78	3.36

(the higher the score, the more external)

A striking feature of the above data is the tendency of the Oklahoma State elementary psychology students to have scores that are more external than the other groups. In addition, the male Oklahoma State University scores appear to be more variable than those of other males.

VITA

#### Dan Michael Smith

## Candidate for the Degree of

Master of Science

Thesis: INTERNAL-EXTERNAL CONTROL AS RELATED TO THE LEARNING OF TASK

RELEVANT AND TASK IRRELEVANT SOCIAL STIMULI

Major Field: Psychology

Biographical:

Personal Data: Born in Ponca City, Oklahoma, October 29, 1948, the son of Mr. and Mrs. Roger A. Smith.

Education: Attended grade school in Ponca City, Oklahoma and was graduated from Ponca City High School in May, 1966. Attended Northern Oklahoma College from September, 1966 to May, 1967 and Oklahoma State University from September, 1967 to May, 1970. Received Bachelor of Science degree in May, 1970. Attended Oklahoma State University from September, 1970 to January, 1973 and completed the requirements for the degree of Master of Science in December, 1973.

Professional Experience: Taught discussion sections of Psychology 3443 from September, 1971 to May, 1972. Practicum experience from September, 1971 to May, 1972 at Payne County Guidance Center at Stillwater, Oklahoma. Practicum experience at Bi-State Mental Health Center at Stillwater, Oklahoma from September, 1972 to May, 1973. Psychology Trainee at Veterans Administration Hospital, Oklahoma City.